State of Montana

Information Technology Strategic Plan

1 April 2006

This is the web version of the printed document. Contact ITSD for a printed version

This is the third State of Montana Strategic Plan for Information Technology prepared under the authority of the Montana Information Technology Act of 2001. It is published biennially unless special interim plans become necessary.

INFORMATION TECHNOLOGY SERVICES DIVISION

Dick Clark, Chief Information Officer

1 April 2006

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OFFICE OF THE GOVERNOR
STATE OF MONTANA

BRIAN SCHWEITZER
GOVERNOR

JOHN BOHLINGER
LT. GOVERNOR

March 2006

Fellow Montanans:

Technology plays a significant role in our daily lives. For Montana state government information technology (IT) is an essential tool for reducing costs and increasing customer satisfaction.

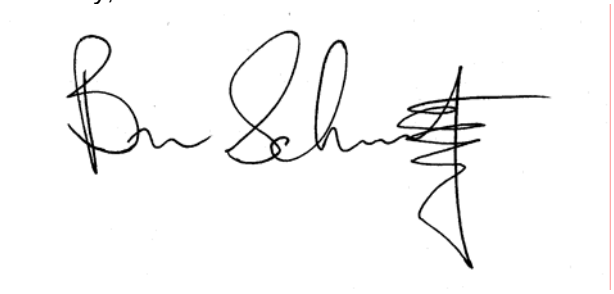
Montana's Strategic IT Plan has been updated. Over the next few years this plan will guide us through the complex issues and problems that are part of effectively managing IT.

Government must focus on meeting the needs of our citizens. When technology is deployed using industry best practices, it can deliver timesaving and laborsaving services at a reasonable cost and risk. The Internet and "e-Government" systems allow Montanans to conduct business with the state from our homes and offices avoiding the need to visit state agencies that may be a considerable distance away.

This plan was built through the work of advisory groups comprised of legislators, agency directors and staff, local government officials and private citizens. I am grateful for their assistance.

I'm confident the State Strategic Plan for Information Technology gives appropriate and effective direction to state leaders and will prove to be helpful to the citizens of Montana. The plan will succeed and its goals be accomplished through the strong federal, state, local and private sector partnership upon which it is built.

Sincerely,



BRIAN SCHWEITZER
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TABLE OF CONTENTS

State of Montana Strategic Plan for Information Technology

INTRODUCTION

The Information Technology Strategic Plan (Strategic Plan) serves as the voice of the Montana Information Technology Act (MITA Title 2, chapter 17, part 5 MCA). The Strategic Plan is a living document. It is reviewed every two years to identify the goals that will be emphasized. It provides the framework and guidance for state agencies to develop and use information technology resources, and provides accountability to the Governor, the Legislature and the citizens of Montana.

The Department of Administration is responsible for enforcing and supporting MITA though the appropriate development and implementation of policies, standards, rules and procedures. The Department will strengthen its efforts by implementing the recommendations of the 2005 Enterprise IT Management Audit.

The definition of terms marked with an * are contained in the Glossary.

MONTANA'S INFORMATION TECHNOLOGY VISION

Montana state government will:

- Be customer-focused in providing electronic and traditional access to government services and information.
- Meet customer expectations regarding their right to participate and their right to know, while protecting their right to individual privacy.
- Promote and use information technology to enable its customers to prosper in the global economy.
- Enter into strategic relationships and encourage collaboration at all levels of government to effectively use information technology.
- Meet customers' expectations for reliable and timely delivery of quality services and information.
- Manage and use IT resources efficiently.
- Establish statewide direction for information technology through fiscally responsible and active stewardship*.

GOALS, OBJECTIVES AND ACTION ITEMS

The Montana Information Technology Act (MITA) defines the State of Montana's policy regarding the use of information technology. The goals of this policy are to:

1. Create quality jobs and a favorable business climate
2. Develop IT resources in an organized, deliberative and cost-effective manner
3. Improve the quality of life of Montana citizens
4. Protect individual privacy* and the privacy of information contained within IT systems
5. Improve government services
6. Provide educational opportunities

The Information Technology Board (ITB) has identified this year's strategic plan objectives. They appear on the following pages, and are arranged according to the goal they support.

GOAL 1: CREATE QUALITY JOBS AND A FAVORABLE BUSINESS CLIMATE

Objective: Expand Montana's SummitNet Network

The State will expand its SummitNet* telecommunications network. The network will provide all citizens with a service entry point for state eGovernment* services, access to public data such as geospatial data and cadastral* property data, and provide the education community and local and state governments' access to most services available through the Internet.

The State will work with the private sector to promote expanded geographical coverage of its network backbone, including interfaces to private-sector network segments where appropriate.

Action Items

Information Technology Services Division (ITSD) will:

1. Conduct a needs assessment, define minimum levels of service, and develop a list of potential users of the network service.
2. Develop a conceptual design describing the opportunities and impact of an expanded network.
3. Work with the private sector to expand the network.

Agencies will:

1. Identify opportunities for the improved delivery of public service over a network that meets minimum standards throughout the state.
2. Expand citizen access to public non-confidential data that has economic value.
3. Evaluate these service opportunities and data access issues from the perspective of both public and private sector costs and benefits.

GOAL 2: DEVELOP IT RESOURCES IN AN ORGANIZED, DELIBERATIVE AND COST-EFFECTIVE MANNER

Objective: Implement Best Practices

Best practices* are methodologies to manage IT plans, processes, policies and projects in an efficient and effective manner. Best practices provide a positive financial return on investment, customer satisfaction, and project risk mitigation perspectives.

Action Items

ITSD will:

1. Expand the following support services to assist agencies in achieving successful IT projects
   - Project management*
   - Investment management*
   - Contract management*
   - Risk management*

Agencies will:

1. Use structured project management methodologies to manage a project's entire life cycle. Projects will be reviewed at completion to highlight lessons learned and archive project knowledge gained.
2. Develop departmental project management staff to effectively manage IT projects
3. Share IT resources (including data, information, expertise, and technology) to achieve economies-of-scale and minimize duplication
4. Continue emphasis on support and maintenance of existing IT systems

Objective: Implement New Technologies

The State will continue to encourage and promote the use of innovative technologies for delivering government services.

Action Items

ITSD will:

1. Conduct a survey to assess agency needs for innovative IT systems and emerging technologies.

2. The Chief Information Officer will create task forces and develop business cases* to evaluate strategies for using open-source standards. Policies will be developed to define State standards in these areas.
3. Research and develop statewide strategies for adopting and funding emerging technologies.

Objective: Provide Stable Funding

Information Technology (IT) is as essential to the State's basic infrastructure as its buildings, people, and equipment. Technology alone does not run state government, but it affects every aspect of its operations and services. It is critical to our productivity, services, products, and business processes.

Expanding and improving IT capabilities has historically been viewed as an expense, rather than a part of ongoing necessary operational investments. IT is an asset and should be managed as an asset.

The demand on the state IT infrastructure* to deliver services comparable to the private sector is increasing faster than current base year budgets can support. The level of IT funding and the funding process must be reevaluated. Montana will develop new approaches that enable long-term, enterprise*-wide investments and abandon current short-term funding approaches.

A new IT funding model with dedicated funding components, at the local, state and agency levels, will demonstrate IT's strategic importance to the State.

Action Items

ITSD will:

1. Evaluate current IT funding levels within agencies and across the Enterprise. Develop an implementation strategy to reach minimal funding levels and gain Executive and Legislative approval.
2. Evaluate the cost and benefits of leasing IT services, not owning them, as part of an overall funding plan.
3. Identify and evaluate alternative IT funding plans that incorporate some dedicated funding components. Develop an implementation strategy and gain Executive and Legislative approval.
4. Identify critical enterprise-wide IT projects that require enterprise-wide funding. Integrate the highest priority projects into the alternative IT funding plan.

Objective: Implement Workforce Development Plan

A Workforce Development* Plan will identify the process of recruiting new employees and developing existing employees to maintain a skilled and properly staffed IT workforce.

Information Technology (IT) plays a critical role in the delivery of nearly every state government service. This delivery of services relies upon a stable nucleus of state employees and contractors who provide specialized skills and fill gaps in staffing.

Action Items

Agencies will:

1. Conduct skills inventory and needs assessment. The IT skills inventory will be used to:
    - Establish a baseline and assist in planning future skill needs
    - Identify growth areas for existing employees
    - Develop future training needs
    - Provide direction to State agencies and educational institutions in setting IT training curriculum
2. Create individual IT staff development plans as part of the employee's annual performance evaluation. Summaries of employees' needs will guide training opportunities within the agencies and the state as a whole.
3. Prepare a succession plan for all critical management and technical positions.
4. Commit to creating a stable learning organization through expanded investment in training and development of employees.
5. Determine when employees are more appropriate and cost effective than using contractor services.

GOAL 3: IMPROVE THE QUALITY OF LIFE OF MONTANA CITIZENS

Objective: Improve Public Safety Communications

The State has taken a leadership role in planning for statewide public safety communications systems, used by state, local, and federal governments in Montana. Several agencies with public safety responsibilities are supporting of its deployment. The State supports an interoperable multimode radio communications system based on national standards to improve emergency response to the public.

Wireless* E9-1-1 is critical to emergency services in Montana. This service will enable emergency services to respond quickly by providing the dispatcher with critical location information from a caller on a wireless phone.

Action Items

ITSD will:

1. Facilitate further development of public safety radio standards and best practices*
2. Identify and explore additional funding scenarios for interoperable public safety radio
3. Expand wireless E 9-1-1 service to all Montana public safety answering points (PSAPs*)

GOAL 4: PROTECT INDIVIDUAL PRIVACY AND THE PRIVACY OF INFORMATION CONTAINED WITHIN IT SYSTEMS

Objective: Improve Enterprise Security and Identity Management

The State will improve interdepartmental coordination; conduct rigorous security assessments; participate in wide ranging security exercises and evaluations; adopt secure architectures; and mitigate security and privacy risks to its systems, infrastructure and data.

Natural disasters and catastrophic events, as well as attacks against our technology infrastructure and systems, can have a severe impact on the State's operations. The State must work to ensure systems are sufficiently protected and robust to maintain business continuity* of state government.

The State's possesses significant amounts of personal and confidential information. The risk of disclosure or inappropriate use of that information, makes privacy protection a paramount concern. The State's legal obligation to protect the confidential information about its citizens and businesses must be balanced against the public's legal right-to-know, as guaranteed in Montana's Constitution. A primary obligation of the State's IT community is the protection of confidential data from accidental disclosure, theft, and destruction.

An enterprise-wide approach is needed to fund and implement major security projects. The IT security implementation plan will center on IT components: network, servers, applications, and the main data center.

Identity authentication is important when state citizens, businesses, and other customers access state government services and information. The State will establish a common plan for identity authentication solutions to insure secure and authorized access to information for state employees, business partners and citizens.

Action Items

ITSD will:

1. Implement statewide security policies, standards and identification tools to help eliminate structural vulnerabilities from the state's IT architecture and systems. This enables more uniform and robust security measures to be implemented.
2. Conduct a rigorous administrative review, physical testing and evaluation of state IT security and recovery programs. This will strengthen security measures, improve security awareness and lead to improved disaster response.
3. Develop a statewide security risk mitigation plan after analyzing available operational recovery readiness information and IT security risks throughout the state.

GOAL 5: IMPROVE GOVERNMENT SERVICES

Objective: Expand eGovernment Services

Since 1999, the state has expanded its electronic government (eGovernment*) services to the citizens and businesses of Montana. Montana eGovernment services received national recognition and numerous awards.

Expanded services will remain focused on mt.gov, the State's official website, and increased accessibility for the visually impaired through awareness, testing and adoption of emerging assistive technologies.

The state is committed to continue to develop and enhance eGovernment IT technical infrastructure.

Action Item

ITSD will:

1. Expand and attract additional citizens to state eGovernment services by offering an increased variety of services, an intuitive common look and feel web designs, and continued updating and adopting of assistive technologies for the visually impaired.

Objective: Expand Geographic Information Technology Services

Geographic information technology systems provide Montana with the needed tools and information to analyze critical issues such as economic development, quality growth, and emergency management.

Action Items

ITSD will:

1. Share geographic data across the Enterprise.
2. Require new agency applications and systems to consider geographic technology and data as a part of the design.

Objective: Expand Business Continuity and Disaster Recovery Planning

Montana's ability to continue to provide state government services in the event of natural or man-made disasters, is a primary focus for state government IT managers. The Information Technology Board (ITB) and the Information Technology Managers Council (ITMC) support enterprise business continuity* and disaster recovery planning.

Montana will work toward developing a business continuity and disaster recovery plan that includes having back up facilities (equipment, office space, etc.) and backup procedures and processes in place before the disaster occurs. Successful recovery efforts at the local, state or federal levels requires IT system continuation.

Action Items

ITSD will:

1. Expand agency planning for continuing and recovering government operations. Montana's disaster and emergency plan requires each agency to have its own continuity of operations and disaster recovery plan. Disaster and Emergency Services (DES), and Department of Administration will finish deployment of the Living Disaster Recovery Planning System (LDRPS) software to agencies to complete their business continuity and disaster recovery plans.
2. Replace the State's data center in Helena and build a redundant data backup and recovery by a facility located outside of Helena. The State's current data center is inadequate to provide state of the art or best practice* infrastructure availability for business continuity or disaster recovery efforts. The new data centers can provide local entities with superior capability to protect data and continue business operations in the face of a disaster.
3. Encourage and include local government and other local entities participation in State business continuity and disaster recovery efforts.

Agencies will:

1. Develop, maintain and exercise continuity of operations and disaster recovery plans.

GLOSSARY

Best Practices	An implemented practice that has been shown to perform optimally through time. As processes and procedures are defined and implemented, patterns can be seen that show the best process and procedure for a business unit, functional area, or type of functionality.
Business Case	A structured proposal for a business project that supplies information to decision makers. A business case usually includes an analysis of business process performance and associated needs or problems, proposed alternative solutions, assumptions, constraints and a cost-benefit analysis.
Business Continuity	The sustaining of normal business operations during both expected and unexpected events that would otherwise impair the normal functioning of the State. This involves around-the-clock ability to recover from both manmade and natural disasters and includes assets beyond information technology such as facilities, personnel, critical knowledge, and physical information.
Business Process	The manual or automated process steps that are performed in order to accomplish a government service. Example: In producing payroll checks an organization must collect employee timesheets, verify timesheets, run pre-payroll reports, run payroll check runs, and sign payroll checks.
Cadastral	Related to the legal record of land ownership for the basis of taxation.
Contract Management	Ongoing monitoring and management of the provision of services in line with the agreed terms and conditions
Customer	Citizens, businesses, federal, local, and tribal governments, and other organizations and stakeholders that utilize Montana State services.
EGovernment	The provision of government services via computer or Internet-based technology.
Enterprise	All agencies of the State, including the University system and participating local government and educational entities, working collaboratively to use, share, and leverage the investments made in information technology. To this end, agencies of the State and participating entities share systems and networks, use standard software and hardware, and train employees in common techniques.
Information Technology	Technology, typically in the form of computers, software, networks, telecommunications, electronic storage, etc., that enables the storage, communication, manipulation, and access to information.
Investment Management	IT projects and systems are managed like a portfolio of investments. They are evaluated against business and IT strategies, prioritized, assessed for risk and scheduled to match available funds.

IT Infrastructure	All information technology hardware and software that cumulatively provides a common foundation of equipment and applications that is shared among all entities of the enterprise. Examples: network hardware/software, LAN/WAN, mainframe and mid-tier computer equipment, storage devices, security hardware/software, etc.
LDRPS	Living Disaster Recovery Planning System or LDRPS is a software package designed by Strohl Systems. This software allows State agencies to input their Continuity of Operations (COOP) recovery plans into a standard format so that all plans can be combined into one Continuity of Government (COG) plan for the State of Montana.
Privacy	The right of individuals to keep information pertaining to themselves from being given out to other individuals and businesses.
Project Management	The application of knowledge, skills, tools, and techniques to project activities to meet project requirements.
PSAP	Public Safety Answering Point A physical location where 911 emergency telephone calls are received and then routed to the proper emergency services.
Risk Management	The identification, assessment, and mitigation actions that minimize and control the risks of implementing and operating IT systems.
Security	Measures taken to guard against unauthorized access or use of information and equipment.
Service(s)	A function that provides access to public information, enables business activity, and addresses the needs of State customers.
Stewardship	The careful management of something placed in one's care.
Strategies	Measurable activities to be performed for the purpose of attaining the goals defined in the Integrated Information Technology Strategic Plan.
SummitNet	The State of Montana's high-speed digital data communications network. The next generation of SummitNet will completely integrate voice, video, and data transmission services around the State.
Wireless	The connection of electronic devices through the use of radio waves, without the use of wires. This typically refers to communications using telephones or computer devices.
Workforce Development	The recruitment, succession planning, and training plans that focus on ensuring the State has an adequately skilled IT workforce.